

AMENDMENT TO THE CLAIMS

Claims 1-28 (Cancelled)

29.(New) A digital television receiver module for use in a digital television receiver for receiving a digital television signal, comprising:

a first connecting device having a plurality of terminals for electrically connecting to one external substrate among external substrates which can receive digital television signals of broadcasting systems different from each other;

a decoding device for executing a decoding processing on a digital television signal inputted from a demodulator provided on said external substrate via said first connecting device, so as to convert the digital television signal into a video signal and an audio signal, and for outputting the video signal and audio signal via said first connecting device;

a control device for controlling an operation of said digital television receiver module; and

an interface device which is connected to one conditional access module among a plurality of types of conditional access modules having electrical specifications different from each other via said first connecting device, and which is connected to said demodulator, said decoding device, and said control device, said interface device executing input and output processings on a plurality of signals communicated among said demodulator, said conditional access module, said decoding device, and said control device,

wherein said control device controls said interface device by changing types and electrical specifications of at least one signal of a plurality of signals communicated via said first connecting

device, so as to conform to electrical specifications of a connected conditional access module, in response to at least one of a broadcasting system of an inputted digital television signal and a type of said connected conditional access module.

30.(New) The digital television receiver module as claimed in claim 29,
 wherein said interface device outputs a digital television signal inputted from said demodulator to said decoding device and said conditional access module via said first connecting device.

31.(New) The digital television receiver module as claimed in claim 29,
 wherein said interface device comprises a plurality of buffers, and
 wherein said control device controls on-off states of respective buffers so as to control the input and output processings.

32.(New) The digital television receiver module as claimed in claim 29,
 wherein, when said conditional access module is not connected to said control device via said first connecting device, said control device controls said interface device so that a detection signal from said conditional access module is outputted to said control device.

33.(New) The digital television receiver module as claimed in claim 30,

wherein, when a first type conditional access module among said plurality of types of conditional access modules is connected to said control device via said first connecting device, said control device controls said interface device so that a digital television signal inputted from said connected conditional access module via said first connecting device is outputted to said decoding device.

34.(New) The digital television receiver module as claimed in claim 33,

wherein said control device outputs a first power-supply voltage to said connected conditional access module via said first connecting device, and controls said interface device so that an address signal and a data signal from said control device are outputted to said connected conditional access module via said first connecting device on the first power-supply voltage.

35.(New) The digital television receiver module as claimed in claim 33,

wherein said first type conditional access module is a conditional access module of a Common Interface.

36.(New) The digital television receiver module as claimed in claim 30,

wherein, in such an initial state that a second type conditional access module among said plurality of types of conditional access modules is connected to said control device via said first connecting device, said control device controls said interface device, so that a second

power-supply voltage is outputted to said connected conditional access module via said first connecting device, a digital television signal inputted from said connected conditional access module via said first connecting device is outputted to said decoding device, and an address signal and a data signal from said control device are outputted to said connected conditional access module via said first connecting device on the second power-supply voltage.

37.(New) The digital television receiver module as claimed in claim 36,

wherein, in such an operating state that is after the initial state that said second type conditional access module among said plurality of types of conditional access modules is connected to said control device via said first connecting device, said control device controls said interface device, so that a clock signal inputted from said connected conditional access module via said first connecting device is outputted to said decoding device, a control signal inputted from said demodulator via said first connecting device is outputted to said connected conditional access module via said first connecting device, and a control signal inputted from said connected conditional access module via said first connecting device is outputted to said demodulator via said first connecting device.

38.(New) The digital television receiver module as claimed in claim 36,

wherein said second type conditional access module is a conditional access module of a cableCARD.

39.(New) The digital television receiver module as claimed in claim 29, further comprising a further interface device for connecting a third type conditional access module to said interface device and said control device.

40.(New) The digital television receiver module as claimed in claim 29,
wherein said third type conditional access module is a conditional access module of an IC card.

41.(New) The digital television receiver module as claimed in claim 39, further comprising a device for selectively switching over between:

(a) a first state that said first connecting device is connected to said interface device; and
(b) a second state that said first connecting device is connected to said further interface device.

42.(New) The digital television receiver module as claimed in claim 29,
wherein said digital television receiver module comprises a substrate having a plurality of layers, and

wherein a capacitor layer substrate on which a plurality of thin-film capacitors are mounted and a resistance layer substrate on which a plurality of thin-film resistances are mounted, are sandwiched between a first signal wiring layer substrate and a second signal wiring layer substrate.

43.(New) The digital television receiver module as claimed in claim 29,

wherein, via said first connecting device, said digital television receiver module can connect to one of the following:

(a) a first type external substrate conforming to a first broadcasting system, and comprising a first type demodulator and a second connecting device which can connect said first type conditional access module thereto; and

(b) a second type external substrate conforming to a second broadcasting system, and comprising a second type demodulator and a second connecting device which can connect said second type conditional access module thereto.

44.(New) The digital television receiver module as claimed in claim 29,

wherein said control device detects a type of said external substrate and a broadcasting system of the inputted digital television signal, based on a type-identifying data signal inputted from said external substrate via said first connecting device, and

wherein, based on a detected broadcasting system, said control device controls an operation of said decoding device and switches over among the types of the signals communicated via said first connecting device so as to control said interface device.

45.(New) The digital television receiver module as claimed in claim 44,
wherein the type-identifying data signal is generated so as to differ depending on the type of said external substrate, by connecting or not connecting said external substrate to a ground conductor.

46.(New) The digital television receiver module as claimed in claim 44,
wherein the type-identifying data signal is a signal of read-out data which is obtained by reading out data stored in a memory mounted on said external substrate so as to differ depending on the type of said external substrate.

47.(New) The digital television receiver module as claimed in claim 46,
wherein the broadcasting system includes at least one of DVB-T system, ATSC system and ISDB-T system.

48.(New) The digital television receiver module as claimed in claim 29, further comprising a third connecting device for connecting a plurality of types of function expansion substrates, said plurality of types of function expansion substrates having functions different from each other to expand a function of said digital television receiver module.

49.(New) The digital television receiver module as claimed in claim 48,

wherein said function expansion substrates include at least one of a network function expansion board for connection to a network, and a CATV modem function expansion board for connection to a head end of a CATV.

50.(New) A digital television receiver for receiving a digital television signal comprising a digital television receiver module and an external substrate,

wherein said digital television receiver comprises:

a first connecting device having a plurality of terminals for electrically connecting to one external substrate among external substrates which can receive digital television signals of broadcasting systems different from each other;

a decoding device for executing a decoding processing on a digital television signal inputted from a demodulator provided on said external substrate via said first connecting device, so as to convert the digital television signal into a video signal and an audio signal, and for outputting the video signal and audio signal via said first connecting device;

a control device for controlling an operation of said digital television receiver module; and

an interface device which is connected to one conditional access module among a plurality of types of conditional access modules having electrical specifications different from each other via said first connecting device, and which is connected to said demodulator, said decoding device, and said control device, said interface device executing input and output processings on a

plurality of signals communicated among said demodulator, said conditional access module, said decoding device, and said control device,

wherein said control device controls said interface device by changing types and electrical specifications of at least one signal of a plurality of signals communicated via said first connecting device, so as to conform to electrical specifications of a connected conditional access module, in response to at least one of a broadcasting system of an inputted digital television signal and a type of said connected conditional access module,

wherein said external substrate comprises:

a first type demodulator; and

a second connecting device for connecting a first type conditional access module thereto,

and

wherein said external substrate is a first type external substrate conforming to a first broadcasting system.

51.(New) A digital television receiver for receiving a digital television signal comprising a digital television receiver module and an external substrate,

wherein said digital television receiver comprises:

a first connecting device having a plurality of terminals for electrically connecting to one external substrate among external substrates which can receive digital television signals of broadcasting systems different from each other;

a decoding device for executing a decoding processing on a digital television signal inputted from a demodulator provided on said external substrate via said first connecting device, so as to convert the digital television signal into a video signal and an audio signal, and for outputting the video signal and audio signal via said first connecting device;

a control device for controlling an operation of said digital television receiver module;

an interface device which is connected to one conditional access module among a plurality of types of conditional access modules having electrical specifications different from each other via said first connecting device, and which is connected to said demodulator, said decoding device, and said control device, said interface device executing input and output processings on a plurality of signals communicated among said demodulator, said conditional access module, said decoding device, and said control device; and

a third connecting device for connecting a plurality of types of function expansion substrates, said plurality of types of function expansion substrates having functions different from each other to expand a function of said digital television receiver module,

wherein said control device controls said interface device by changing types and electrical specifications of at least one signal of a plurality of signals communicated via said first connecting device, so as to conform to electrical specifications of a connected conditional access module, in response to at least one of a broadcasting system of an inputted digital television signal and a type of said connected conditional access module,

wherein said external substrate comprises:

a first type demodulator; and

a second connecting device for connecting a first type conditional access module thereto,
wherein said external substrate is a first type external substrate conforming to a first
broadcasting system, and
wherein said digital television receiver module further comprises a first type said function
expansion substrate.

52.(New) The digital television receiver as claimed in claim 50,
wherein said external substrate includes a plurality of circuits corresponding to a plurality
of types of display devices different from each other, respectively, and
wherein said external substrate further comprises one of a plurality of types of display
interfaces for outputting video signal and audio signal outputted from said digital television
receiver module to said display devices.

53.(New) The digital television receiver as claimed in claim 52,
wherein each of said display devices is one of a liquid crystal display, a plasma display and
a CRT display.

54.(New) A digital television receiver for receiving a digital television signal comprising a
digital television receiver module and an external substrate,
wherein said digital television receiver comprises:

a first connecting device having a plurality of terminals for electrically connecting to one external substrate among external substrates which can receive digital television signals of broadcasting systems different from each other;

a decoding device for executing a decoding processing on a digital television signal inputted from a demodulator provided on said external substrate via said first connecting device, so as to convert the digital television signal into a video signal and an audio signal, and for outputting the video signal and audio signal via said first connecting device;

a control device for controlling an operation of said digital television receiver module;

an interface device which is connected to one conditional access module among a plurality of types of conditional access modules having electrical specifications different from each other via said first connecting device, and which is connected to said demodulator, said decoding device, and said control device, said interface device executing input and output processings on a plurality of signals communicated among said demodulator, said conditional access module, said decoding device, and said control device; and

a third connecting device for connecting a plurality of types of function expansion substrates, said plurality of types of function expansion substrates having functions different from each other to expand a function of said digital television receiver module,

wherein said control device controls said interface device by changing types and electrical specifications of at least one signal of a plurality of signals communicated via said first connecting device, so as to conform to electrical specifications of a connected conditional access module, in

response to at least one of a broadcasting system of an inputted digital television signal and a type of said connected conditional access module,

wherein said external substrate comprises:

a first type demodulator;

a second connecting device for connecting a first type conditional access module thereto;

and

a first type display interface for connecting a first type display thereto,

wherein said external substrate conforms to a first broadcasting system and is a first type external substrate connected to said first type display device.

55.(New) A digital television receiver for receiving a digital television signal comprising a digital television receiver module and an external substrate,

wherein said digital television receiver comprises:

a first connecting device having a plurality of terminals for electrically connecting to one external substrate among external substrates which can receive digital television signals of broadcasting systems different from each other;

a decoding device for executing a decoding processing on a digital television signal inputted from a demodulator provided on said external substrate via said first connecting device, so as to convert the digital television signal into a video signal and an audio signal, and for outputting the video signal and audio signal via said first connecting device,

a control device for controlling an operation of said digital television receiver module; and

an interface device which is connected to one conditional access module among a plurality of types of conditional access modules having electrical specifications different from each other via said first connecting device, and which is connected to said demodulator, said decoding device, and said control device, said interface device executing input and output processings on a plurality of signals communicated among said demodulator, said conditional access module, said decoding device, and said control device,

wherein said control device controls said interface device by changing types and electrical specifications of at least one signal of a plurality of signals communicated via said first connecting device, so as to conform to electrical specifications of a connected conditional access module, in response to at least one of a broadcasting system of an inputted digital television signal and a type of said connected conditional access module,

wherein said external substrate comprises:

a first type demodulator;

a second connecting device for connecting a first type conditional access module thereto;

and

a first type display interface for connecting a first type display thereto,

wherein said external substrate conforms to a first broadcasting system and is a first type external substrate connected to said first type display device, and

wherein said digital television receiver module further comprises a first type said function expansion substrate.

56.(New) The digital television receiver as claimed in claim 50,
wherein said digital television receiver module is formed by a first dielectric substrate,
wherein said external substrate is formed by a second dielectric substrate, and
wherein a dielectric constant of said second dielectric substrate is larger than a dielectric
constant of said first dielectric substrate.